

REMARKS/ARGUMENTS

Claims 1 and 4-11 are pending. Claims 2 and 3 are cancelled. Claims 1 and 4-5 are amended. Claims 6-11 are newly added. Support for the amendments can be found at, e.g., original claims 1-5 and page 2, line 10 to page 10, line 22 of the original specification.

Sequence Rules

Please see the enclosed response in compliance with the requirements of 37 CFR 1.821 through 1.825.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph and 35 U.S.C. § 101

Claims 1-5 are rejected under 35 U.S.C. § 112, second Paragraph and 35 U.S.C. § 101. Specifically, the Examiner notes that the process claims 1-5 do not recite any active steps. In response, claims 1 and 4-5 are amended; claims 2 and 3 are cancelled. All the presently pending process claims recite at least one active step. Hence, the present amendments render the rejection under 35 U.S.C. § 112, second paragraph, and 35 U.S.C. § 101 moot. Withdrawal of these rejections is respectfully requested.

Claim Rejections under 35 U.S.C. § 102(b)

Claims 1-5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Sorensen *et al.*, J. Virology, Dec. 1993, p. 7118-7124.

According to the Examiner, Sorensen *et al.* teaches a primer that has a total G and C content of 53% with a biotin coupled to the 5' end of the primer as shown in Figure 1A and 1 C.

Applicants have now amended claims 1 and 4-5, cancelled claims 2-3, and added new claims 6-11. For at least the following reasons, none of the present claims is anticipated by Sorensen *et al.* under 35 U.S.C. 102(b).

Sorensen *et al.* does not disclose any PCR primer with a compound being attached at the 5' terminus, as recited in claims 1 and 4-5. The compound attached to the 5' terminus in the present claims 1 and 4-5 do not include biotin or, oligonuclotide with at least four bases and a combined G and C content of at least 25%.

As to claim 6, it recites the use of a PCR primer that comprises an oligonucleotide added to a 5' terminus of the PCR primer. The oligonucleotide has at least four bases and a combined G and C content of at least 50%. The at least four bases are non-specific to the sequence of the target DNA fragment to be amplified. The primers disclosed in Sorensen *et al.* are different from that of claim 6. For example, each of the primers 1-4 as shown in Fig. 1-C contains only sequences that are specific to the template to be hybridized. Even if the segment of "CAGTTCAAG" at the 5' terminus of the two FPs (2863 and 2553) is considered as an oligonucleotide added to the 5' terminus of the PCR primer which is non-specific during hybridization, it only contains a GC content of 44.4% (4GC/9 bases), which is not "at least 50%" as required by claim 6. Hence, claim 6 is not anticipated by Sorensen *et al* under 35 U.S.C. 102(b). For at least the same reasons, none of claims 7-8 depending from claim 6, is anticipated under 35 U.S.C. 102(b) by Sorensen *et al.*

Claim 9 recites that PCR is either one of asymmetric PCR and degenerate PCR when biotin is attached to the PCR primer. There is no disclosure in Sorensen *et al* that a primer to which biotin is conjugated to the 5' terminus is suitable for asymmetric PCR or degenerate PCR.

Claims 10-11 differ from Sorensen *et al.* in that claims 10-11 require the use of a linker to conjugate biotin to the primer. Sorensen *et al.* does not disclose the use of a linker to conjugate

biotin to the primer.

Therefore, each of the present claims 1 and 4-11 is not anticipated by Sorensen *et al.* under 35 U.S.C. 102(b). Withdrawal of the rejections under 35 U.S.C. 102(b) is respectfully requested.

In addition, Applicant would like to remind the Examiner that we have submitted two Information Disclosure Statements (one is sent on October 3, 2003, and the other was sent on January 29, 2004), but neither one has been acknowledged as having been considered. Consideration of these two Information Disclosure Statements is respectfully requested.

Based on the foregoing reasons, Applicants believe that the present amendments have placed the present application in a condition of allowance. Early and favorable consideration is respectfully requested.

A check in the amount \$400 is enclosed in payment for the addition of two independent claims in excess of three.

It is believed that no other fees or charges are required at this time in connection with the present application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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Dated: September 2, 2005